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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,990	11/04/2003	Marc I. Glazer	03848-00132	4467

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EXAMINER

FORMAN, BETTY J

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/700,990

Applicant(s)

GLAZER ET AL.

Examiner

BJ Forman

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 37-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39-48 is/are allowed.
- 6) ☒ Claim(s) 37 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. This application is a division of Application No. 09/545,207, now U.S. Patent No. 6,824,866 filed 7 April 2000 and claims priority to Provisional Application 60/128,402, filed 8 April 1999.

Applicant provides support for the instant claims. However, the '402 application does not provide adequate support under 35 U.S.C. 112 for the instant claims because the '402 application does not describe "an unsintered porous layer" as claimed. Therefore, the effective filing date for the instant claims is the filing date of the '207 application i.e. 7 April 2000.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 37 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Ayers (U.S. Patent No. 5,801,092, issued 1 September 1998).

Regarding Claim 37, Ayers discloses a method of forming a porous substrate comprising providing a substrate material comprising a surface (e.g. wafer), dipping (Column 6, lines 50-52) the substrate into a solution including colloidal silica and a carrier (Fig. 1), the silica

Art Unit: 1634

having a particle size of about 12-100 nm (Column 5, lines 51-65), and withdrawing the substrate to provide an unsintered porous layer having a thickness of about 0.1-1.0 microns (Column 6, lines 50-56) and a porosity of about 10-90% (i.e. the “about” encompasses a range of 0-100%, therefore the porous layers of Ayers are encompassed by the broadly claimed about 10-90%). Ayers further teach the method as claimed and further teaches the optional step of curing/heating (Column 7, lines 12-13). Furthermore, the instant claim language “comprising” encompasses any additional steps recited in the method.

Regarding Claim 38, Ayers discloses a method of forming a porous substrate comprising providing a substrate material comprising a surface (e.g. wafer), spinning (Column 6, lines 50-52 and Column 8, lines 8-16) the substrate into a solution including colloidal silica and a carrier (Fig. 1), the silica having a particle size of about 12-100 nm (Column 5, lines 51-65), and withdrawing the substrate to provide an unsintered porous layer having a thickness of about 0.1-1.0 microns (Column 6, lines 50-56) and a porosity of about 10-90% (i.e. the “about” encompasses a range of 0-100%, therefore the porous layers of Ayers are encompassed by the broadly claimed about 10-90%).

4. Claims 37 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Ayers (U.S. Patent No. 6,277,766, filed 3 February 2000).

The Ayers reference is prior art against the instant claims because, as stated above, the effective filing date for the instant claims is 7 April 2000.

Regarding Claim 37, Ayers discloses a method of forming a porous substrate comprising providing a substrate material comprising a surface (e.g. wafer), dipping the substrate into a solution including colloidal silica and a carrier, the silica having a particle size of about 12 nm (Column 6, line 49), and withdrawing the substrate to provide an unsintered porous layer

Art Unit: 1634

having a thickness of about 0.1-1.0 microns (Column 8, lines 13-31) and a porosity of about 10-90% (i.e. the "about" encompasses a range of 0-100%, therefore the porous layers of Ayers are encompassed by the broadly claimed about 10-90%).

Regarding Claim 38, Ayers discloses a method of forming a porous substrate comprising providing a substrate material comprising a surface (e.g. wafer), dipping the substrate into a solution including colloidal silica and a carrier, the silica having a particle size of about 12 nm (Column 6, line 49), and withdrawing the substrate to provide an unsintered porous layer having a thickness of about 0.1-1.0 microns (Column 8, lines 13-31) and a porosity of about 10-90% (i.e. the "about" encompasses a range of 0-100%, therefore the porous layers of Ayers are encompassed by the broadly claimed about 10-90%).

5. Claims 37 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Wicks et al (U.S. Patent No. 5,637, 507).

Regarding Claim 37, Wickes et al disclose a method of forming a porous substrate comprising providing a substrate material comprising a surface, dipping (Column 8, lines 38-46) the substrate into a solution including colloidal silica and a carrier (Fig. 1), the silica having a particle size of about 12-100 nm (Column 5, lines 4-6), and withdrawing the substrate to provide an unsintered porous layer having a thickness of about 0.1-1.0 microns ("thin film" illustrates as two layers of particles, fig. 1) and a porosity of about 10-90% (i.e. the "about" encompasses a range of 0-100%, therefore the porous layers of Ayers are encompassed by the broadly claimed about 10-90%).

Regarding Claim 38, Wickes et al disclose a method of forming a porous substrate comprising providing a substrate material comprising a surface, spinning (Column 8, lines 38-46) the substrate into a solution including colloidal silica and a carrier (Fig. 1), the silica

Art Unit: 1634

having a particle size of about 12-100 nm (Column 5, lines 4-6), and withdrawing the substrate to provide an unsintered porous layer having a thickness of about 0.1-1.0 microns ("thin film" illustrates as two layers of particles, fig. 1) and a porosity of about 10-90% (i.e. the "about" encompasses a range of 0-100%, therefore the porous layers of Ayers are encompassed by the broadly claimed about 10-90%).

6. Claims 39-48 are drawn to the method of making and method of using the patented porous support of U.S. Patent No. 6,824,866. The porous support of instant Claims 39-48 are commensurate in scope with the patented porous support and are therefore deemed allowable.

7. Claims 37-38 are rejected.

#### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (571) 272-0741. The examiner can normally be reached on 6:00 TO 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

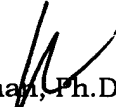
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1634

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

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For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.



BJ Forman, Ph.D.  
Primary Examiner  
Art Unit: 1634  
June 20, 2006